

IN THE CLAIMS:

Claims 1-12 (canceled).

Claim 13 (new): A method for manufacturing a storage disk comprising the steps of:

providing a first substrate (1) that is transparent in a given spectral band;

applying to a first side of said first substrate an arrangement of layers including a reflection layer system (6); and

applying to a second side of said substrate a protection layer system for protecting said second side from ambience, said protection layer system comprising at least one layer of at least one of silicon oxinitride and substoichiometric silicon oxide.

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Claim 14 (new): The method of claim 13, further comprising the steps of applying said arrangement, including said reflection layer system (6), by:

applying a layer system (2) which is semitransparent in said spectral band;

then applying a second substrate (5) that is transparent in said spectral band;

and

then applying said reflection layer system (6).

Claim 15 (new): The method of claim 13, further comprising the step of applying at least one layer of said reflection layer system and said at least one layer of said protection layer system with a vacuum coating process of the same type.

Claim 16 (new): The method of claim 14, further comprising the step of applying at least one layer of said semitransparent layer system, at least one layer of said reflection layer system and said at least one layer of said protection layer system by a vacuum coating process of the same type.

Claim 17 (new): The method of claim 13, further comprising the step of depositing at least one layer of said reflection layer system and said at least one layer of said protection layer system by sputtering.

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cont'd Claim 18 (new): The method of claim 14, further comprising the step of depositing at least one layer of said semitransparent layer system and at least one layer of said reflection layer system, as well as said at least one layer of said protection layer system, by sputtering.

Claim 19 (new): The method of claim 13, further comprising the step of selecting the refractive index of material of said at least one layer of said protection layer system to be equal to the refractive index of a material of said first transparent substrate.

Claim 20 (new): The method of claim 13, further comprising the step of selecting the refractive index n of said at least one layer of said protection layer system as follows: $1.47 \leq n \leq 1.7$.

Claim 21 (new): The method of claim 20, further comprising the step of selecting:

$1.5 \leq n \leq 1.6$.

Claim 22 (new): The method of claim 13, further comprising the step of selecting the refractive index n of said at least one layer of said protection layer system to be at most 1.57.

Claim 23 (new): The method of claim 13, further comprising the step of selecting the extinction constant k of said at least one layer of said protection layer system to be $10^{-4} \leq$

$k \leq 5 \times 10^{-3}$.

Claim 24 (new): The method of claim 13, further comprising the step of selecting the extinction constant k of said at least one layer of said protection layer system to be at most 10^{-3} .

Claim 25 (new): The method of claim 13, further comprising the step of depositing said at least one layer of said protection layer system by reactive sputtering of a silicon target.

Claim 26 (new): The method of claim 13, further comprising the step of depositing said protection layer system with a thickness of at least 10 nm.

Claim 27 (new): The method of claim 13, further comprising the step of depositing said protection layer system with a thickness of at least 50 nm.

Claim 28 (new): The method of claim 13, wherein said at least one layer of said protection layer system comprises substoichiometric silicon oxide.

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Claim 29 (new): The method of claim 13, wherein said at least one layer of the protection layer system comprises silicon oxinitride.
